ABSTRACT

A variable wattage control system is disclosed for providing varying wattage levels for a power-receiving device. The power-receiving device is operatively associated with a sensing means that communicates with a temperature controller for comparing the sensed temperature with a predetermined set point. If the sensed temperature falls outside the set point, the temperature controller directs a power control means to turn on the heating element at a specific wattage level. The variable wattage control system may include a micro-controller contained in either the temperature controller, power controller or a separate module which determines a power output scaling factor based on the percentage of the full line voltage being applied to the power-receiving device and then scaling the power output. The power output scaling factor determines the maximum percentage power to be applied to the power-receiving device such that a single device may be driven at different power levels for various applications.